



# USE SAFE WEAPONS IN THE WAR ON GARDEN PESTS

The City of San Diego Household Hazardous Materials Program

You can win the war against garden pests — whether they crawl, fly or just grow out of the ground — while maintaining your sanity *and* environmental sensitivity! Using a few garden guidelines can make you a smart “home environmentalist.”



Strong chemical pesticides represent the “heavy artillery” in the bug and weed battles most homeowners face. Although the pesticides can be used safely, other products and techniques should make them a weapon of last resort. Preventive techniques offer the first line of defense, and some safer alternatives can save money as well:

- Healthy plants resist insects and weeds. Select plants suited to the soil and climate and those known to be pest-resistant.
- Maintain your garden through proper watering, fertilizing, periodic pruning and weeding, and by clearing away debris. Drip irrigation systems can limit weeds by not offering them a water supply.
- Monitor pest population by getting to know the bugs that damage your garden as well

as the useful insects that maintain a good balance by eating pests.

- Utilize nontoxic control methods first when pests do become a problem: e.g., hand-picking, a strong water jet, barriers and traps. Grow plants such as marigolds and garlic to help repel insects.
- Use the least toxic chemicals available when all other methods fail and confine the treatment to affected areas only.

For severe infestations, use pyrethrin insecticides in water-based or powder formulations. Consult local nursery personnel and gardeners and ask them for the least toxic solutions. Most nurseries and garden shops now carry soap and sulfur products, which are less toxic than some other chemical treatments. Some nurseries also carry limited stocks of beneficial insects or can recommend a source. Such insects can eliminate the need for pesticides in your garden. Check local libraries and bookstores for references with additional approaches.



## Garden Pest Control

The following chart shows some useful pest control methods. Many of these treatment solutions are not toxic at all! As is always recommended, read label directions before using commercial pesticides.

	METHOD	EXAMPLES	PESTS
Mechanical	Handpicking		Cabbage loopers, cutworms, slugs, snails, tomato hornworms
	Adhesive products, full-force water spray	Sticky barriers, whitefly traps	Ants, crawling insects, whiteflies, aphids, mites, earwigs, grasshoppers
	Traps	Shallow pan of stale beer	Snails
Non-Mechanical	Inorganic dusts	 Diatomaceous earth, silica aerogel, sulfur dust	Most insects and snails, fungi, mites
	Oil spray	Oil without copper additive	Scale, mealybugs, whiteflies, red spider mites
	Soap and water solutions	Make your own: mix 5 tsp. soap and 1 gal. water. Apply using a spray bottle	Aphids, mites, whiteflies



Wiping Out Weeds

Several safe approaches can wipe out weeds, including those listed below.

TYPE OF WEED	TREATMENT METHOD
All weeds	Remove by hoeing, handpicking.
Fungi (e.g. mildew)	Apply fungicides such as sulfur dust or sulfur solution.
Annuals:	<b>Before they appear:</b> Cover with mulch and ground cover such as ice plant to minimize; apply a “pre-emergent” herbicide.
Annuals, perennials, stumps, ambrush, iceplant weeds	<b>After they have appeared:</b> Apply herbicides such as soap solutions, ammonium sulfamate, magnesium chloride on the affected areas.



Proper Disposal of Chemical Pesticides

Throwing leftover pesticides and other household hazardous wastes in the trash can endanger the environment and refuse collectors - and it's against the law! Take household hazardous wastes, including pesticides, to a citywide household hazardous waste collection event. To minimize hazardous waste, use nontoxic pest control whenever possible. If you choose a commercial pesticide, buy only what you need and use up all that you buy. For information on collection events, call the Household



Hazardous Materials Program Hotline at 235-2111. For information on used oil recycling options, call the Used Oil Infoline at 235-2105.

DID YOU KNOW...

- You can't put pesticides in the trash?
- You need to get to know your bugs?
- You can make a pesticide from soap and water?

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THE HOME ENVIRONMENT



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NO. 3 OF A SERIES

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Household Hazardous Materials.....	
Program Hotline.....	235-2111
(All other areas).....	1-(800) 246-1233
Used Oil Infoline.....	235-2105
Recycling Hotline: Paper, Glass, Cans.....	467-0903
(All other areas).....	1-(800) 237-2583
Paint for Graffiti Removal	
Graffiti Control Hotline.....	527-3431
(All other areas).....	1-(800) 246-1233

Health Information	
Emergencies.....	911
Poison Control Center.....	543-6000
Indoor Air Pollution:	
American Lung Association.....	297-3901

Reporting Hazards	
Air Emissions:	
Air Pollution Control District.....	694-3340
Oil-Burning, Smoking Vehicles.....	1-(800)-28-SMOKE
Illegal dumping of hazardous waste:	
County Dept. of Environmental Health.....	338-2284
Storm Water Pollution Hotline.....	533-3793
Pesticides:	
County Agricultural Commissioner.....	694-2739

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